AMENDMENTS

In The Specification:

Please amend paragraph beginning at page 10, line 15 as follows:

--As shown, the Relative Block Number 301 is used to register physical location of the relative logic block number that is mapped to this block. The Relative Logic Sector Number 302 is used to indicate whether the block is a spare block (when its value is 0xFFFF) or to indicate the location of the sector that is the last one written into the writing block. The Window Number 303 is used to indicate the window that is associated with this block. The Writing-block Cycle Counter 304 is used to register the current value of the cycle counter of the writing block. The Check Sum Code 305 is used to store the check sum code excluding block error flag and the error correction code. The Window Information Cycle Counter 306 can be used to indicate which window information block contains the newest data. The Block Error Flag 307 is used to indicate whether the block is invalid. The Error Correction Code 308 is used to store the error correction code for the user-data area in the sector.--

Please amend paragraph beginning at page 19, line 19 as follows:

--FIG. 9 is a flow diagram showing a preferred embodiment of the procedure performed by the invention for reading data from a number of sectors through a parallel pipelined operation. The read operation 901 on the first sector requires three stages and 190 ms to complete. In the preferred embodiment, the stage 1 is to find a requested sector requested by data-access requesting component, and the stage 2 is to load the requested sector from the flash memory into one of the buffer areas, and the stage 3 is to transfer the requested sector loaded in the buffer area to the data-access requesting component. After the read operation 901 proceeds to the second stage 902, the first stage 903 of the read operation on the second sector is started; and after the read operation 901 proceeds to the third stage 904, the second stage 905 for the second sector and the first stage 906 for the third sector can be started one after one and operated at the same time. [~~the second stage 905 and third stage 906 of the read operation on the second sector are started one after one.~~] As a result, the overall read operation 907 on the second sector takes just 100 ms (i.e., the complete time of the third stage). Further, after the read operation 907 on the second sector proceeds to the third stage 908, the second stage 909 of the read operation on Sector 3 and the first stage 910 of the read operation on Sector 4 are started one after one. As a result, the overall read operation on Sector 3 also takes just 100 ms. Therefore, it can be concluded that for *n* sectors, the overall read operation on these *n* sectors will take 190 + 100*(*n*-1) ms to complete.--

Please amend paragraph beginning at page 21, line 11 as follows:

--FIG. 11 is a flow diagram showing a preferred embodiment of the procedure performed by the invention for writing data to flash memory through a parallel pipelined operation. In the preferred embodiment, the writing operation is divided into three stages. The stage 1 is to transfer a writing sector that is to be written into the flash memory to one of the buffer areas. The stage 2 is to compute for the address of the writing sector in the flash memory. The stage 3 is to check whether the previous write operation on the flash memory is correct and then transfer the writing sector in the buffer area to the flash memory. Moreover, in the preferred embodiment, the write operation on stage 1 of sector 1 (1101) proceeds to the stage 2 of sector 1 (1102) before the stage 1 (1101) is ended, and the stage 2 (1102) is ended before the stage 1 (1101) is ended, too. During the write operation on stage 1 of sector 2(1103),the stage 3 of sector 1(1104) and the stage 2 of sector 2(1105) are started one after one. The stage 2 of sector 2(1105) is ended first and then the stage 3 of sector 1(1104) and the stage 1 of sector 2(1103) are ended one after one. For example, while the sector 3(1106) is at the stage 1, the sector 2(1107) at the stage 3 can start, as well as the sector 3 (1108) at stage 2 can be proceeded at the same time. All the other stages to finish the write operation are started and then ended one after one like that. Finally, the stage 3 of the last sector(1109) is started and then ended individually.--